

ABSTRACT

A scroll fluid machine includes a stationary scroll (21) having a spiral wrap (24) formed on an end plate (23) and a moving scroll (22) having a spiral wrap (24) formed on an end plate (23). A polymer actuator (40) for adjusting the amount of space between the wrap (24) and the end plate (23) is disposed in a recess formed at the tip of the wrap (24). The polymer actuator (40) changes its shape along the height of the wrap (24) to adjust the amount of the space. The polymer actuator (40) also functions as a seal between the end plate (23) and the wrap (24). The recess is formed such that a wall of the recess including an inner circumference surface of the wrap (24) has a thickness different from that of a wall of the recess including an outer circumference surface of the wrap (24).